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EXAMINER

KUMAR, PREETI

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## **DETAILED ACTION**

### ***Final Rejection***

1. Claims 1-7 and 12-22 are pending. Claim 22 is newly added in the amendment filed 2/11/2007. Claim 1 is independent.

### ***Response to Amendment***

2. The rejection of claims 1-4, 12-15 and 17-21 under 35 U.S.C. 102(b) as anticipated by Casey et al. (US 4,678,658) is maintained.

3. The rejection of claims 5-7, 16 and 22 under 35 U.S.C. 103(a) as being unpatentable over Casey et al. (US 4,678,658) in view of Coates et al. (EP 0 099 209) is maintained. The limitation of newly added claim 22 has been addressed below.

### ***Response to Arguments***

4. Applicant's arguments filed 2/11/2007 have been fully considered but they are not persuasive. Applicants urge that the prior art teaching of Casey et al. (US 4,678,658) does not anticipate the claimed composition since Casey et al. teach germicides and surfactant detergent compounds as a necessary component of the composition while the instant claims recite these components as optional. This argument is not found convincing because the teachings of Casey et al. recite the claimed components in the claimed ratio and furthermore, the instant claims recite optional limitation to said "necessary" components which components are clearly not excluded from the claimed composition.

Applicants urge that the prior art teaching of Coates is not pertinent to the instant claims since there is no recitation of any criticality respecting any combination of

specific pH, alcohol in achieving any kill or any microorganism, an in particular polio virus. In response, the instant claims are drawn to a broad range of microorganisms and not limited to killing polio virus as stated by applicants arguments. Furthermore, the teaching of Coates et al. provide motivation to one of ordinary skill to arrive at an antimicrobial composition comprising ethanol since Coates et al teaches the equivalence of ethanol with isopropanol taught by the primary reference of Casey et al. See abstract of Coates et al. Also, it would have been obvious to one of ordinary skill in the art to arrive at an antimicrobial composition comprising quaternary ammonium halides since Coates et al. teach that the quaternary ammonium halide will provide good biocidal activity after evaporation of the alcohol within the antimicrobial composition. See abstract and page 4,ln.5-10.

### ***Claim Rejections***

5. Claims 1-4, 12-15 and 17-21 are rejected under 35 U.S.C. 102(b) as anticipated by Casey et al. (US 4,678,658).

Casey et al. teach an aerosol spray for use in disinfecting a surface for personal use, such as a public restroom facility or telephone. The composition and delivery of the composition provides for the placement of a spray of disinfectant which includes a dye. The dye disappears as the spray effects the germicidal activity of the disinfectant. The composition is also rapidly drying, so that the dye disappears as well as the disinfecting composition leaving the surface dry. See abstract.

Casey et al. teach that the composition exhibits antimicrobial efficacy against Herpes simplex virus type 2 (HSV2) as well as bacteria such as Staphylococcus aureus,

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*Neisseria gonorrhoeae*, enteric bacteria *Escherichia coli* 011K58 (Pathogenic), *Shigella sonnei* and *Salmonella typhimurium*, and the yeast *Candida albicans*. See col.1,ln.55-60.

In table 5, in col.6, Casey et al. illustrate a biocide propellant comprising 51.62wt.% isopropanol and 27.52 wt.% deionized water. In example 1, col.3, Casey et al. teach that the pH of the composition varies between 8.8 and 12.53.

Accordingly the teachings of Casey et al. anticipate the material limitations of the instant claims.

6. Claims 5-7, 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casey et al. (US 4,678,658) in view of Coates et al. (EP 0 099 209).

Casey et al. are relied upon as set forth above.

However, Casey et al. do not teach the claimed quaternary ammonium compound recited by the instant claims 5-7 and do not specifically teach the claimed ethanol of claim 16 and the claimed microorganisms of claim 22.

Regarding claim 16, Coates et al. teach an aqueous disinfectant solution having residual biocidal activity comprising 60-80% C1-C4 alcohol, preferably ethanol or isopropanol. See abstract. Coates et al. teach that a quaternary ammonium halide addition to the composition will be useful in cleaning hard surfaces in hospital since the composition will show good biocidal activity after evaporation of the alcohol. See abstract and page 4,ln.5-10. Regarding claim 6, although Coates et al. preferably teach the utility of quaternary ammonium chlorides, the teachings of Coates encompasses all quaternary ammonium halides and thus encompasses the material limitation of the

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instant claim. Regarding claim 22, Coates et al. teach the biocidal activity against *Pseudomonas aeruginosa*, *S. aureus*, *E. coli* and *Salmonella cholerae*usis. See page 8,ln.15-20 and table 2.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the antimicrobial composition of Casey et al. with the quaternary ammonium compound and ethanol as recited by the instant claims, because the teachings of Coates et al. provide motivation to one of ordinary skill to arrive at an antimicrobial composition comprising ethanol since Coates et al teaches the equivalence of ethanol with isopropanol taught by the primary reference of Casey et al.

It would have been obvious to one of ordinary skill in the art to arrive at an antimicrobial composition comprising quaternary ammonium halides since Coates et al. teach that the quaternary ammonium halide will provide good biocidal activity after evaporation of the alcohol within the antimicrobial composition.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to arrive at an antimicrobial composition having biocidal activity against *Pseudomonas aeruginosa* and *Salmonella cholerae*usis as recited by the instant claim 1 and 22, because the teachings of Casey et al. in view of Coates et al. suggest a antimicrobial composition having biocidal activity against various reinfesting organisms in general. One of ordinary skill in the art, would have been motivated to combine the teachings of Casey et al. with that of Coates et al. because both teach the analogous art of antimicrobial detergent composition.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Mc Ginty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Preeti Kumar *PK.*  
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Art Unit 1751

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